

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. -27. (Cancelled)

28. (Previously Presented) A tone ring assembly for use on a rotatable machine part, said assembly including a rotatable tone ring able to generate a varying voltage output when rotated at varying speeds, with a fixed magnetic sensor assembly disposed in facing relation and closely spaced from said tone ring, said rotatable machine part including an axially inner portion and an axially outer portion running in a surrounding bearing unit, said tone ring comprising an axially extending main body portion with a plurality of areas able to generate a voltage output upon rotation, a retainer having at least one radial flange to prevent substantial axial movement of said tone ring, said tone ring including plural axially extending ribs of reduced diameter on its inner diameter for snugly engaging a shaft, and having axial spaces of enlarged diameter between said ribs, thereby affording passages for oil to pass axially through said tone ring assembly.

29. (Previously Presented) A tone ring assembly as defined in claim 28, wherein said tone ring able to generate a voltage output by rotation comprises a tone ring body which includes a large plurality of axially extending lands and grooves therein.

30. (Previously Presented) A tone ring assembly as defined in claim 28, wherein said tone ring body includes a radial flange formed on the axially outer end thereof.

31. (Previously Presented) A tone ring assembly as defined in claim 28, wherein said retainer includes a corrugated outer diameter, whereby oil may pass axially along the outer diameter of said retainer.

32. (Previously Presented) A tone ring assembly as defined in claim 28, wherein said axially extending ribs on the inner diameter of said tone ring assembly have beveled end portions so as to facilitate installation over an associated axle shaft.

33. (Previously Presented) A tone ring assembly as defined in claim 28, which further includes a spacer, lying in use between one end of said tone ring and one flange of said retainer, said spacer being made from a low friction material which is also resistant to noise making when in at least occasional contact with said tone ring.

34. (Previously Presented) A tone ring assembly as defined in claim 33, wherein said spacer is made from a plastic material.

35. (Previously Presented) A tone ring assembly as defined in claim 30, which further includes a low friction coating material on the axially outermost portion of said radial flange on said tone ring body.

36. (Previously Presented) A tone ring assembly as defined in claim 33, wherein said spacer is discontinuous at its outer diameter to permit oil flow axially therethrough.

37. (Previously Presented) A tone ring assembly as defined in claim 28, wherein at least said rib portion of said tone ring is an elastomer that is a blend of NBR and EPDM.

38. (Previously Presented) A tone ring assembly as defined in claim 28, wherein said ribs on said tone ring comprise at least one elastomer selected from the class consisting of NBR, HNBR, EPDM, AEM and ACM.

39. (Previously Presented) A tone ring assembly as defined in claim 28, wherein said ribs on said inner diameter of said tone ring are made from a thermoplastic or thermoset material.

40. (Previously Presented) A tone ring assembly as defined in claim 30, wherein said radial flange of said retainer includes cut-out portions to permit oil to pass therethrough.

41. (Previously Presented) A tone ring assembly as defined in claim 30, wherein said body has, on said outer flange thereof, a stepped diameter.

42. (Previously Presented) A tone ring assembly as defined in claim 30, wherein said tone ring further includes an air gap lying between radially opposed portions of said body and said radial flange for allowance of maximum axle shaft deflections without touching the flanges on said retainer.

43. (Previously Presented) A tone ring assembly as defined in claim 28, which may have one associated axle shaft removed and either that axle shaft or another axle shaft installed into the original tone ring and retainer assembly.

44. (Previously Presented) A tone ring assembly as defined in claim 30, wherein said tone ring assembly may be installed over an axle shaft and held in place by interference between said tone ring body and said flanges on said retainer during the entire sequence of installing the axle shaft.

45. (Previously Presented) A tone ring assembly for use on a rotatable machine part, said assembly including a rotatable tone ring able to generate a voltage output by rotation and a magnetic sensor assembly disposed in facing relation and closely spaced from said tone ring, said rotatable machine part including an axially inner portion and an axially outer portion running in a surrounding bearing unit and with oil leakage being resisted by an oil seal, said tone ring comprising an axially extending main body portion with a plurality of lands and grooves, which generate a voltage output upon rotation, and a radially extending flange at one end of said tone ring, a retainer

having axially inner and outer radial flanges to prevent substantial axial movement of said tone ring, and a spacer lying between said radially extending flange on said tone ring and said axially outer radial flange of said retainer, said tone ring including a plural radially extending ribs on its inner diameter for snugly engaging a shaft, the spaces between said ribs affording passages for allowing oil to pass axially through said tone ring.

46. (Previously Presented) A tone ring assembly as defined in claim 45, which further includes a groove in said tone ring body lying between said flange and the remainder of said body, said groove receiving one of said axial flanges of said retainer and preventing axial movement of said body.

47. (Previously Presented) A tone ring assembly as defined in claim 45, wherein said body portion of said tone ring and said retainer are so sized that, upon installation of said retainer in the application counterbore, said body portion is supported by said retainer, and presents an opening in the inside diameter thereof that is able to be aligned without additional aid with an axle shaft which is to be inserted therethrough.

48. (Previously Presented) A tone ring assembly for use on a rotatable machine part, said assembly including a rotatable tone ring able to generate a voltage output by rotation and a magnetic sensor assembly disposed in facing relation and closely spaced from said tone ring, said rotatable machine part including an axially inner portion and an axially outer portion running in a surrounding bearing unit and with oil

leakage being resisted by an oil seal, said tone ring comprising an axially extending main body portion with a plurality of lands and grooves able to generate a voltage output upon rotation, and a radially extending flange at one end of said tone ring, a retainer having axially inner and outer radial flanges to prevent substantial axial movement of said tone ring, said tone ring including means permitting passage of oil axially along said tone ring as well as means for engaging an axle shaft to locate said tone ring on said axle shaft, said engaging means allowing said axle shaft and said tone ring to become more strongly adherent when said tone ring is exposed to an oily condition.